

First Hit

L8: Entry 1 of 1

File: JPAB

Oct 31, 1997

PUB-NO: JP409281054A

DOCUMENT-IDENTIFIER: JP 09281054 A

TITLE: METHOD AND APPARATUS FOR SURFACE INSPECTION OF DISK

PUBN-DATE: October 31, 1997

## INVENTOR-INFORMATION:

NAME

COUNTRY

SHIMONO, TAKESHI

NOMURA, TAKESHI

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

MATSUSHITA ELECTRIC IND CO LTD

APPL-NO: JP08089696

APPL-DATE: April 11, 1996

INT-CL (IPC): G01 N 21/88; G01 M 11/00

## ABSTRACT:

PROBLEM TO BE SOLVED: To provide a surface inspection apparatus for disk, by which both the surface defect inspection and the tilt inspection of the disk can be performed simultaneously, which shortens the inspection time, and which can reduce the installation cost.

SOLUTION: The apparatus is provided with a disk rotation means 51 which supports and turns a disk 1, a defect inspection means 54 by which the disk 1 is irradiated with light from a light source 2, in which its reflected light or its transmitted light is detected by detection parts 52, 53 and which the defect on the inspection face of the disk 1 is detected on the basis of a change in a quantity of detected light, and tilt inspection 55a to 55d by which the disk 1 is irradiated with the light from the light source, in which its reflected light is detected by the detection part and by which the inclination state on the inspection face of the disk 1 is detected from the light receiving position of the detected light.

COPYRIGHT: (C)1997, JPO

First Hit☐ **Generate Collection**

L7: Entry 20 of 26

File: DWPI

Oct 31, 1997

DERWENT-ACC-NO: 1998-022864

DERWENT-WEEK: 199803

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Testing method for detecting defects e.g. crack, blotch, pinhole, incination on control surface of disk - by detecting variation of quantity of light reflected from disk surface to determine surface defects, and detecting optical light-receiving positions to determine inclination state of disk control surface

PATENT-ASSIGNEE:

ASSIGNEE

CODE

MATSUSHITA DENKI SANGYO KK

MATU

PRIORITY-DATA: 1996JP-0089696 (April 11, 1996)

**Search Selected** **Search ALL** **Clear**

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> <u>JP 09281054 A</u>	October 31, 1997		011	G01N021/88

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 09281054A	April 11, 1996	1996JP-0089696	

INT-CL (IPC): G01 M 11/00; G01 N 21/88

ABSTRACTED-PUB-NO: JP 09281054A

BASIC-ABSTRACT:

The method involves operating simultaneously a defect inspecting unit (54), consisting of a pair of detectors (52,53), and tilt inspecting units (55a-55d) on a disk (1) rotated by a rotating unit (51). A halogen light source (2) irradiates light into the rotating disk, after which the reflected light is detected optically by the detectors.

The defects on the control surface of the disk is then detected by the inspecting unit from the detected variation of the quantity of light reflected on the disk surface. The inclination state of the disk control surface is determined by the inspecting units from the detected optical light-receiving positions of the detectors.

USE/ADVANTAGE - For manufacture of DVD disk. Shortens inspection time by performing disk surface discontinuity and tilt inspections simultaneously, thereby reducing installation costs. Positions defect inspecting unit along line beam direction of light source to balance visual field intensity, thereby improving discrimination

accuracy between defective and non-defective portions of disk surface.

CHOSEN-DRAWING: Dwg.1/17

TITLE-TERMS: TEST METHOD DETECT DEFECT CRACK BLOTCH PINHOLE CONTROL SURFACE DISC  
DETECT VARIATION QUANTITY LIGHT REFLECT DISC SURFACE DETERMINE SURFACE DEFECT  
DETECT OPTICAL LIGHT RECEIVE POSITION DETERMINE INCLINATION STATE DISC CONTROL  
SURFACE

DERWENT-CLASS: S02 S03 T03 W04

EPI-CODES: S02-J04B9; S03-E04B1B; S03-E04F1; S03-E04F2; T03-B01D1; T03-B01E7B; T03-B01E7C; W04-C01E;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N1998-017425